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Stephen T. Davis

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STREETS & STEELE

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EXAMINER

METZMAIER, DANIEL S

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* STEPHEN T. DAVIS and  
VAITHILINGAM PANCHALINGAM

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Appeal 2009-010527  
Application 10/518,617  
Technology Center 1700

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Decided: May 25, 2010

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Before BEVERLY A. FRANKLIN, LINDA M. GAUDETTE, and  
KAREN M. HASTINGS, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 4, 7-10, and 12-17. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

## STATEMENT OF THE CASE

Claim 7, the sole independent claim, is representative (emphasis added):

7. A method of treating a gas well comprising:

introducing into said well an aqueous mixture *during gas production from the well* to reduce liquid loading, the aqueous mixture comprising an amphoteric surfactant in an effective amount to create a stable foam within the well, the amphoteric surfactant having the general formula:



wherein X is a hydrocarbyl group containing from 2 to 36 carbon atoms, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are independently hydrogen or a hydrocarbyl group containing from 1 to 4 carbon atoms, and Y is hydrogen, a negative charge, or a hydrocarbyl group containing from 1 to 4 carbon atoms, wherein any of the hydrocarbyl groups can be optionally substituted with functional groups, and wherein the surfactant is essentially free of chloride containing compounds.

The Examiner maintained, and Appellants seek review of, the following rejections<sup>1</sup>:

1) claims 7, 12, 13, and 17 under 35 U.S.C. § 102(b) as anticipated by England<sup>2</sup>

2) claims 4, 7, 8, 12-14, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over Qu<sup>3</sup>;

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<sup>1</sup> The rejection under 35 U.S.C. § 112, was withdrawn (Ans. 3, 4).

<sup>2</sup> US 6,720,290 B2 issued April 13, 2004

<sup>3</sup> US 2002 /0023752 A1 published February 28, 2002

3) claims 9, 10 and 15 under 35 U.S.C. § 103(a) as unpatentable over England or Qu, each optionally with Carey<sup>4</sup>.

Appellants have not separately argued any of the dependent claims in either of the first two grounds of rejection with any reasonable degree of specificity; they focus only on independent claim 7 (Br. 6, 7).

Accordingly, we also focus on claim 7 to decide the main issues on appeal. We also select claim 9 to decide the issue represented in the third rejection on appeal; see 37 C.F.R. § 41.37(c)(1)(vii).

#### MAIN ISSUES ON APPEAL

Has the Examiner erred in rejecting the claims because:

(a) England does not describe introducing its aqueous mixture “during gas production from the well” as recited in claim 7; and

(b) Qu does not describe introducing its aqueous mixture “during gas production from the well” as recited in claim 7?

Issues (a) and (b) turn on the broadest reasonable interpretation of the claim language.

We answer both of these questions in the negative.

#### PRINCIPLES OF LAW

During examination, claim terms must be given their broadest reasonable construction consistent with the Specification. *In re ICON Health and Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007). The Federal Circuit has

expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment. That is not just because section 112 of the Patent Act requires that the claims

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<sup>4</sup> US 6,143,709 issued November 7, 2000

themselves set forth the limits of the patent grant, but also because persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments.

*Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (internal citation omitted). *See also, Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1345 (Fed. Cir. 2008) (citing *Phillips*, 415 F.3d at 1323).

This approach is not unfair to applicants, because “before a patent is granted the claims are readily amended as part of the examination process”. *Burlington Indus., Inc. v. Quigg*, 822 F.2d 1581, 1583 (Fed. Cir. 1987). It also “serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified.” *In re Yamamoto*, 740 F.2d 1569, 1571-72 (Fed. Cir. 1984).

An applicant seeking a narrower construction must either show why the broader construction is unreasonable or amend the claim to expressly state the scope intended. *In re Morris*, 127 F.3d 1048, 1057 (Fed. Cir. 1997).

## ANALYSIS

### with Findings of Fact

We adopt the Examiner’s detailed factual findings stated in the Answer (Ans. 4-7) and Final Office Action (3-6), as well as the Examiner’s findings of fact in response to the Appeal Brief as set out on pages 7-10 of the Answer in the “Response to Argument” section.

Appellants’ sole argument, with respect to the § 102 rejection based on England as well as the § 103 rejection based on Qu, is that the Examiner has unreasonably construed “during gas production from the well” to

encompass the fractionation process of England or Qu (Br. 6, 7). Appellants rely on portions of their Specification which discuss gas production as evidence that the surfactant mixture must be introduced while gas is flowing from the well (*id.*). This contention is unavailing for the reasons enumerated by the Examiner (Ans. 8, 9). As aptly noted by the Examiner, Appellants' Specification nowhere defines the meaning of "during gas production from the well" (*see generally* Spec.). Indeed, neither the originally filed claims nor the Specification contains this phrase.

Appellants' reliance on their Specification which discusses that gas production from a well may decrease over time is of no persuasive merit (Br. 6). England describes that its treatment is "useful both for fracturing newly drilled wells and for workover of existing wells (e.g., *remedial fracturing of a well that has been producing for some time* and has already been fractured in the past)." (Col. 3, ll. 1-6 (emphasis added); *see also* reason (2) at Ans. 8). The artisan would thus appreciate that a fractionation process, such as shown in both England and Qu, may reasonably be viewed as occurring "during gas production from the well" as recited in claim 7; that is, at "any time during the production prior to completion of the well as dormant" as explained by the Examiner (Ans. 8).

We see no basis in the claim language or Specification which warrants interpretation of claim 7 as *precluding* the introduction of the aqueous mixture during a fractionation process. Accordingly, we find no basis in the language of claim 7 or in the disclosure in the Specification on which to read the disputed language as urged by Appellants.

Thus, we sustain the Examiner's § 102 rejection based on England, as well as the Examiner's § 103 rejection based on Qu.

With respect to dependent claim 9, Appellants' argument that there is no suggestion to introduce the fluids of England or Qu through a capillary string (Br. 8) is of no persuasive merit for the reasons articulated by the Examiner (Ans. 10). As aptly pointed out by the Examiner, capillary strings are conventional for gas well additives, including foaming agents, as exemplified if necessary in Carey (*id.*). Appellants have not disputed any of the Examiner's findings at page 10 of the Answer, including that Qu alone clearly "contemplates the use of capillary strings" (*note*, no Reply Brief has been filed).

Accordingly, we sustain the Examiner's § 103 rejection of claims 9, 10, and 15 based on England or Qu, each alone or each with Carey.

#### CONCLUSION and ORDER

The Examiner's rejections of all the claims on appeal are affirmed.

The Primary Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

#### AFFIRMED

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